

A Paradigm Shift in Jurisprudential Interpretations: Reassessing the Principle of Legal Certainty in the Era of Algorithmic Governance

Morgan Roberts

Professor

Heidelberg University

Grabengasse 1, 69117 Heidelberg, Germany

Pat Lopez

Associate Professor

Harvard Law School

Cambridge, MA 02138, USA

Mia Morris

PhD

University of Oxford

University Offices, Wellington Square, Oxford OX1 2JD, UK

Abstract. With the advent of algorithmic governance, traditional legal frameworks face unprecedented challenges. This study critically evaluates the principle of legal certainty, exploring its adaptability in a technologically-driven legal environment. Employing a comparative methodological approach, the article highlights inconsistencies within current interpretations and provides insights into potential recalibrations. Our findings underscore the need for a dynamic jurisprudential model that accommodates technological advancements while preserving core legal principles.

Keywords: algorithmic governance, legal certainty, jurisprudence, algorithmic decision-making, technological advancements, comparative law, legal adaptability

Introduction

The rapid integration of algorithmic systems into governance frameworks poses significant challenges to the established tenets of jurisprudence, particularly the principle of legal certainty. As legal systems grapple with the complexities introduced by technology, questions arise regarding the adaptability of traditional legal doctrines. The principle of legal certainty, a cornerstone of equitable jurisprudence, ensures predictability, consistency, and security in the application of laws. However, with the advent of algorithm-driven decision-making, achieving this certainty becomes increasingly complex. In recent years, the intersection of law and technology has provoked rigorous academic discourse, focusing on the capability of existing legal theories to accommodate advancements such as artificial intelligence and machine learning. Algorithmic governance, characterized by automated processes dictating legal and administrative decisions, introduces novel uncertainties that

challenge the predictability traditionally afforded by legal certainty. This article seeks to explore the extent to which the principle of legal certainty can be maintained or needs to be recalibrated in response to these technological developments. By utilizing a comparative analysis of legal systems that have integrated algorithmic processes, the study aims to illuminate areas of potential doctrinal recalibration. The subsequent sections of this paper are organized as follows: the second section provides an overview of the current landscape of algorithmic governance; the third section examines case studies illustrating the impact of such governance on legal certainty; the fourth section discusses potential theoretical recalibrations necessary to bridge observed gaps, and the final section offers conclusions and recommendations for policymakers.

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